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Valvular Heart Disease

ASSESSMENT OF FRAILITY USING PATIENT-PROVIDED INFORMATION INDEPENDENTLY PREDICTS OUTCOME IN AORTIC STENOSIS

Moderated Poster Contributions

Valvular Heart Disease Moderated Poster Theater, Poster Hall B1

Monday, March 16, 2015, 10:00 a.m.-10:10 a.m.

Session Title: Multimodality Imaging for Prognosis in Aortic Stenosis

Abstract Category: 40. Valvular Heart Disease: Clinical

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Background: Because aging is a major determinant of aortic stenosis (AS), frailty is potentially of critical implication, but remains insufficiently assessed. Assessing frailty using patient provided information is feasible. Our aim was to develop a frailty index and evaluate its incremental prognostic value.

Methods: In 870 patients (age 78 ± 10 yrs) with AS, frailty was assessed ± 6 months from echo. A frailty index was created using 27 deficits. It was calculated as the proportion of variables present and could range from 0-1.

Results: The median frailty index was 0.26. Patients with frailty index ≥ 0.26 were older (81 ± 9 vs. 76 ± 12 yrs), had lower mean gradient (29 ± 16 vs. 36 ± 18 mmHg), lower ejection fraction (54 ± 16 vs. $59 \pm 14\%$), higher BNP ratio (i.e. adjusted for age and sex, median 3.8 vs. 1.9), more comorbidities (Charlson index: 7.7 ± 3.5 vs. 3.0 ± 2.5) and more symptoms (68 vs. 55%) (all $p \leq 0.001$). After adjustment for all baseline data, frailty index powerfully predicted mortality under medical management ($p < 0.0001$). Greater frailty was associated with worse survival after stratification by age (Figure). The frailty index improves survival prediction ($p < 0.0001$) with 1-year net reclassification index of 12.9%.

Conclusion: In patients with AS, frailty is associated with age, comorbidities and AS characteristics. This simple frailty index provides prediction of survival incremental to all clinical, echocardiographic and hormonal characteristics, warranting its use in clinical practice.

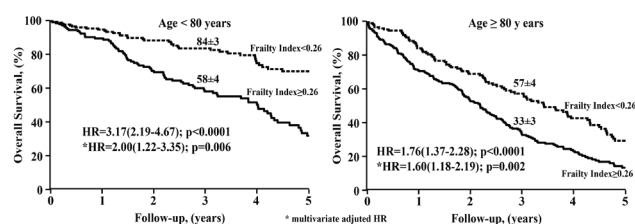


Figure: Overall survival under medical treatment according to age and frailty index